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Applicant: Edgar A. O'Rear III, et al.
Douglas J. Sorocco
Tel: (405) 607-8600

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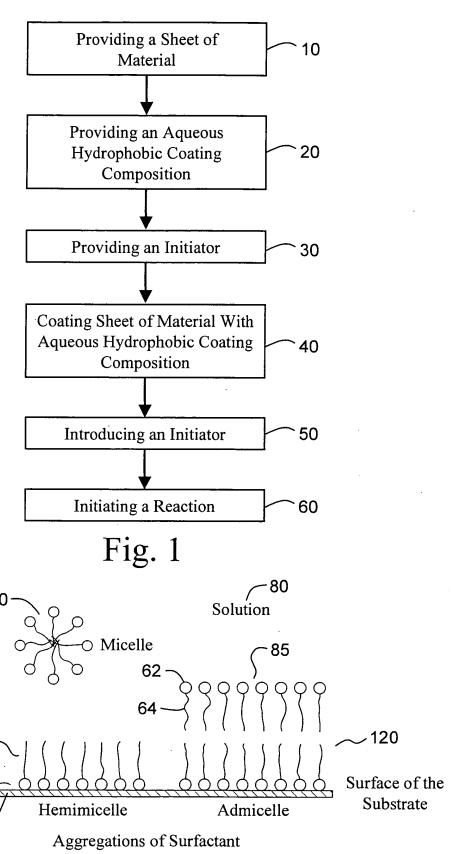
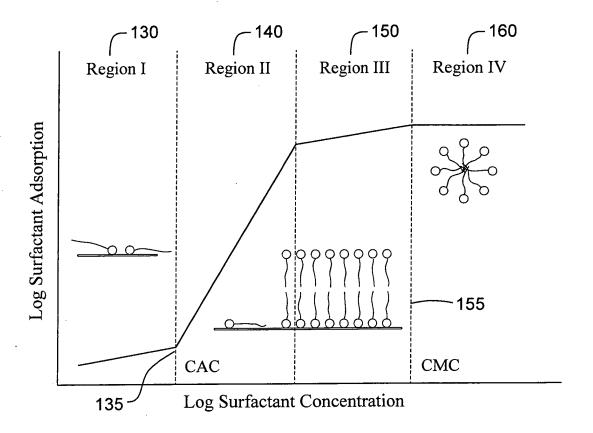


Fig. 2

110

100

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Adsorption Isotherm of Surfactant Fig. 3

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Tel: (405) 607-8600 Page 3 of 14 Informal Drawings Surfactant Monomer Μ – M — Polymer 80 Solution 62 85 A 90 90 Solid Substrate Absorbed Surfactant -100 100 Μ Μ Μ Μ 62 B 180 90 Monomer Partitioning -100 Μ 200 \mathbf{C} 190-

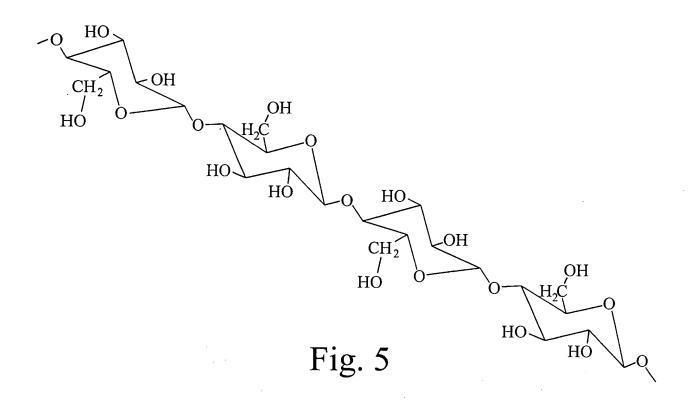
Fig. 4

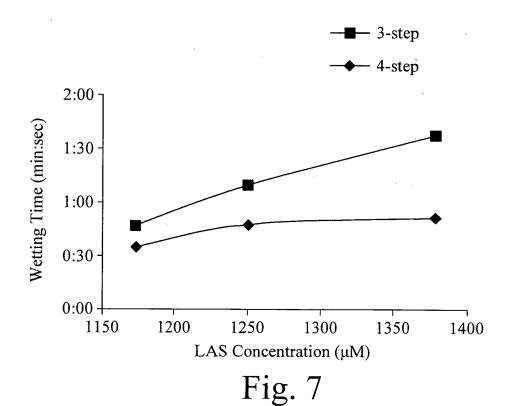
In-situ Polymerization

210

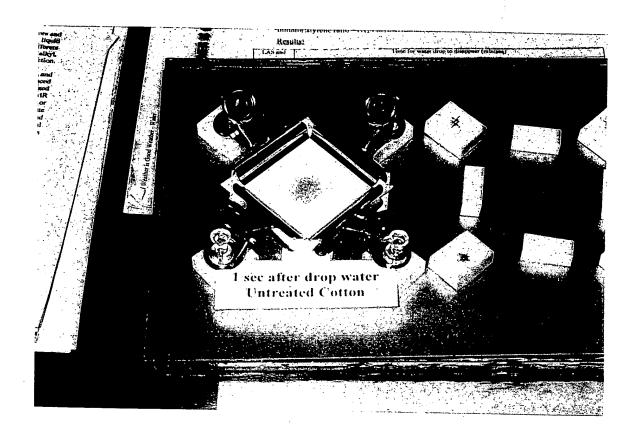
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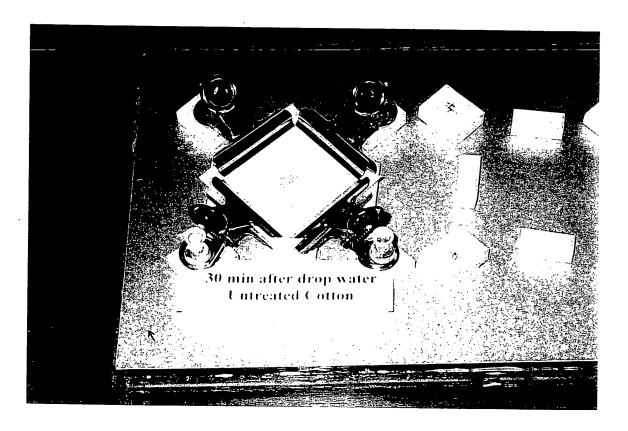
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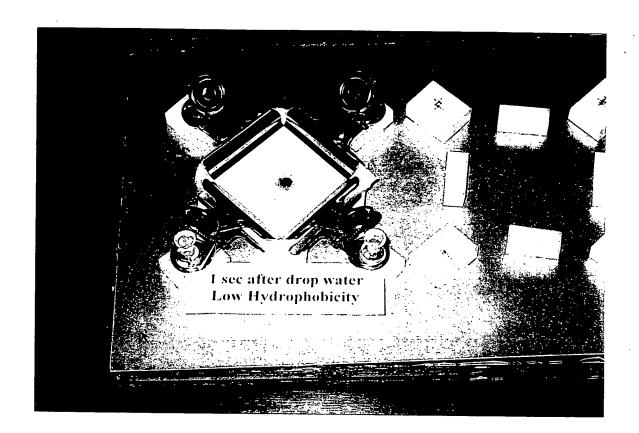


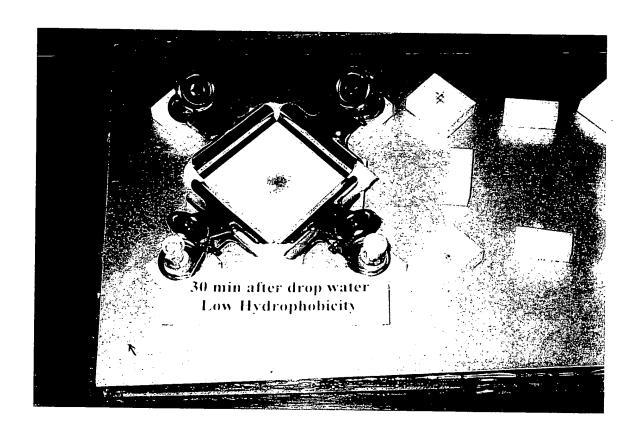
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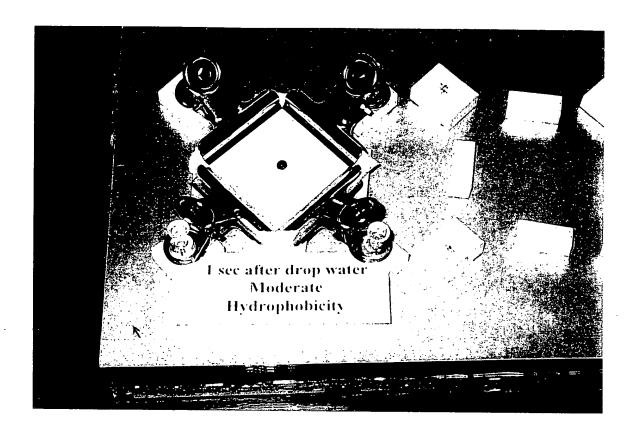


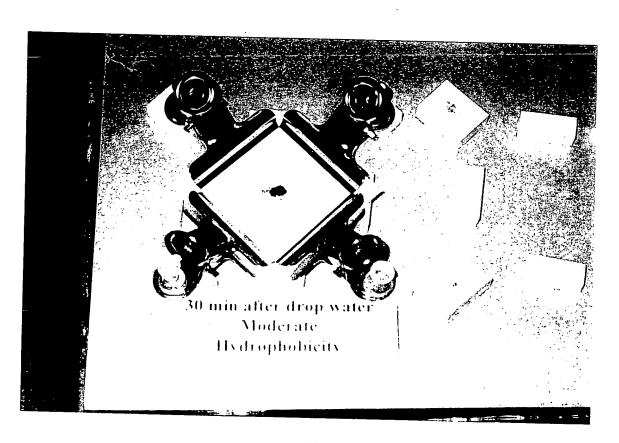
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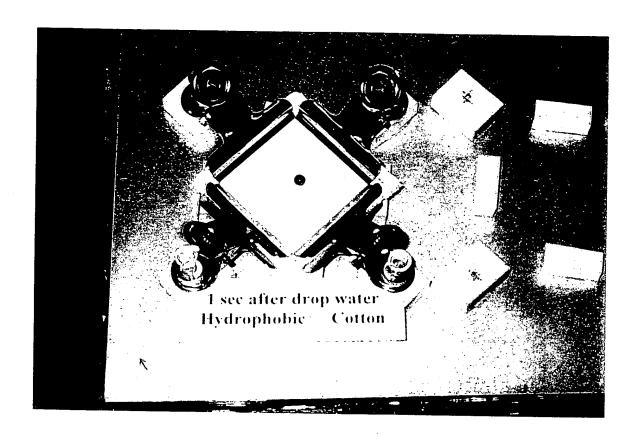


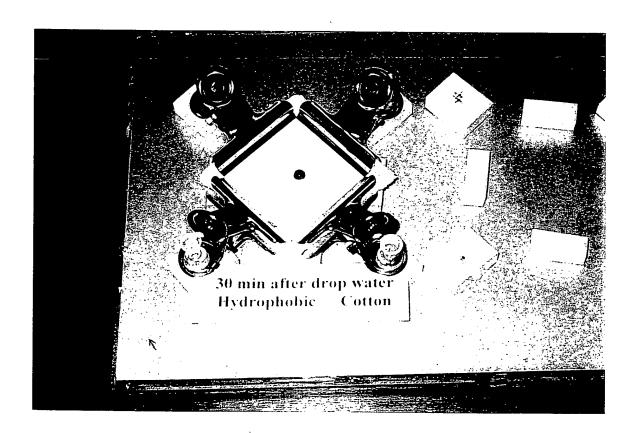
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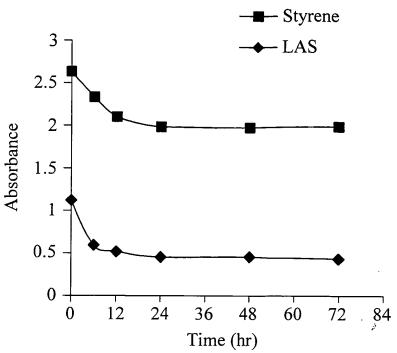


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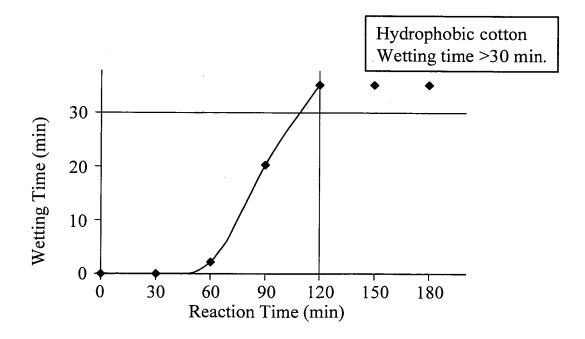
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Change in LAS and Styrene concentration with time in admicelle formation and adsolubilization steps.

Fig. 8

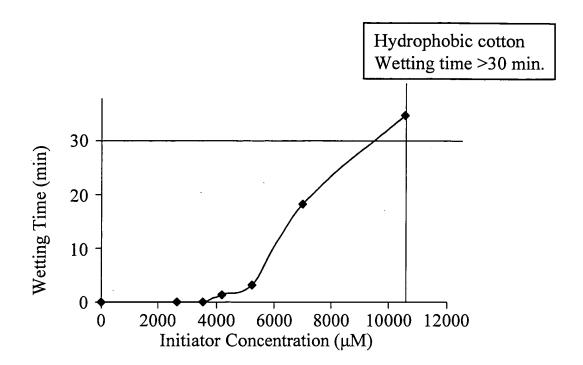


Wetting time of treated fabric with reaction time [LAS concentration 1000 µM, LAS:Styrene ratio=1:10, Initiator:Styrene ratio=1:1, and Polymerization time=2 hrs at 80°C]

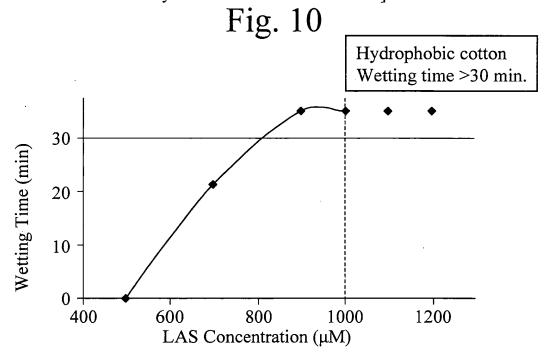
Fig. 9

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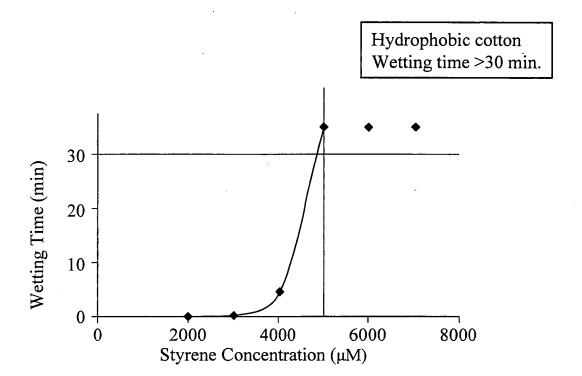
Wetting time of treated fabric with varying amount of initiator [LAS concentration 1000 μM, LAS:Styrene ratio=1:10, and Polymerization time=2 hrs at 80°C]



Wetting time of treated fabric with varying LAS concentration [LAS:Styrene ratio=1:10, Initiator:Styrene ratio=1:1, and Polymerization time=2 hrs at 80°C]

Fig. 11

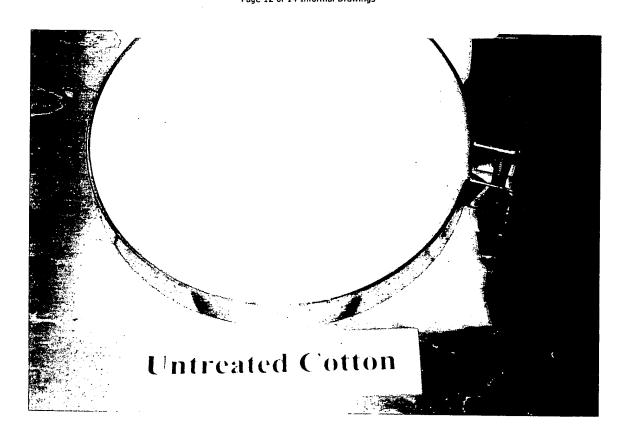
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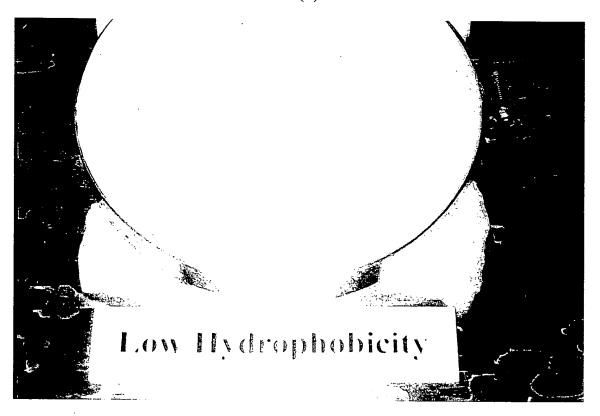
Wetting time of treated fabric with varying Styrene concentration [LAS concentration 1000 µM, Initiator:Styrene ratio=1:1, and Polymerization time=2 hrs at 80°C]

Fig. 12

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(a)



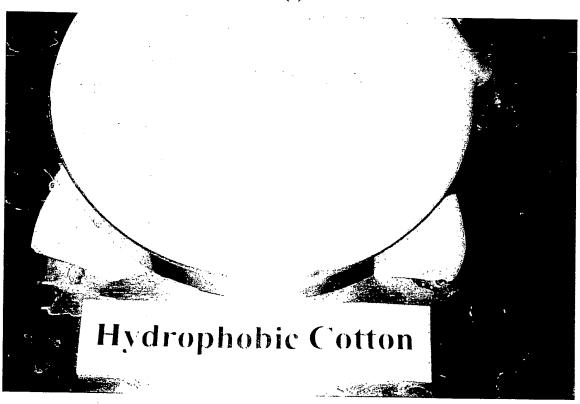
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Moderate Hydrophobicity

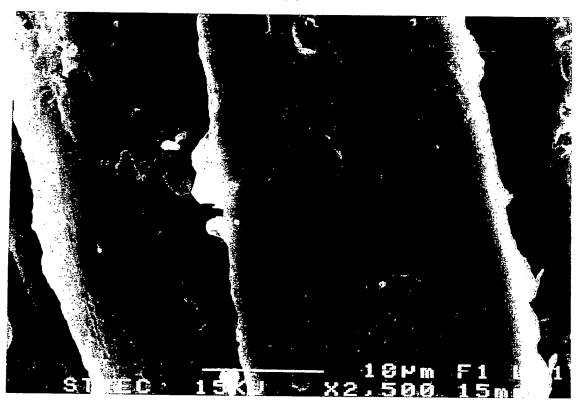
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(a)



(b)

Figure 14